

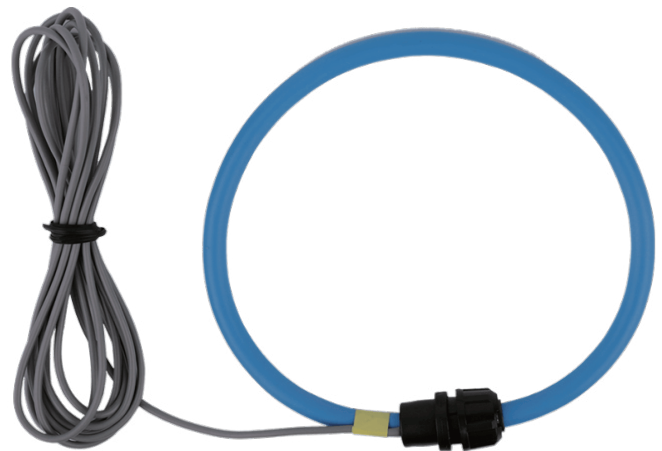
FQ-RCT02

6000A AC FLEXIBLE ROGOWSKI COIL CURRENT SENSOR

The FQ-RCT02 flexible current sensor is an AC current sensor composed of a flexible Rogowski coil. The flexible current sensor permits measurements on conductors where standard clamp-on probes cannot be used. In particular, it can be installed in tight spaces, around cable bundles, around wide or large bus bars, or even wrapped around irregular shapes. It is suitable for large current measuring. They combine the benefits of a thin, flexible, clip-around Rogowski (sense) coil with a signal conditioner providing accurate, true rms measurement, of voltage output 100mV/kA. Models range from 1A to 100,000Arms with an accuracy of 1% of reading. Rated EN 61010, 600V CAT IV, 1000V CAT III. Low cost AC current measurement probe designed to plug into digital multimeters, oscilloscopes, power quality analysis and power or harmonic meters. The length of the flexible current sensor can be selected from 40cm to 100cm. Fits around large or small conductors. Capable of getting into tight or difficult spaces. Ideal for measuring AC current in a group of conductors.

Features

1. CNAS, UL, CE mark;
2. High times harmonic measurement;
3. Frequency 0.1Hz-10MHz Bandwidth;
4. Conforms to EN 61010, 1000V CAT III;
5. Measurement range of 1A to 100KA AC;
6. Low phase shift for power measurement;
7. High permeability magnetic material core;
8. Improved ergonomic design & easy operation;
9. Excellent linearity 0.2% for current measurement;
10. 100mV/kA or 85mV/kA or 50mV/kA output signal;
11. Holding wire diameter: ϕ 305mm/190mm/120mm;
12. Designed for DMMs, oscilloscopes, recorders, power and harmonic meters;

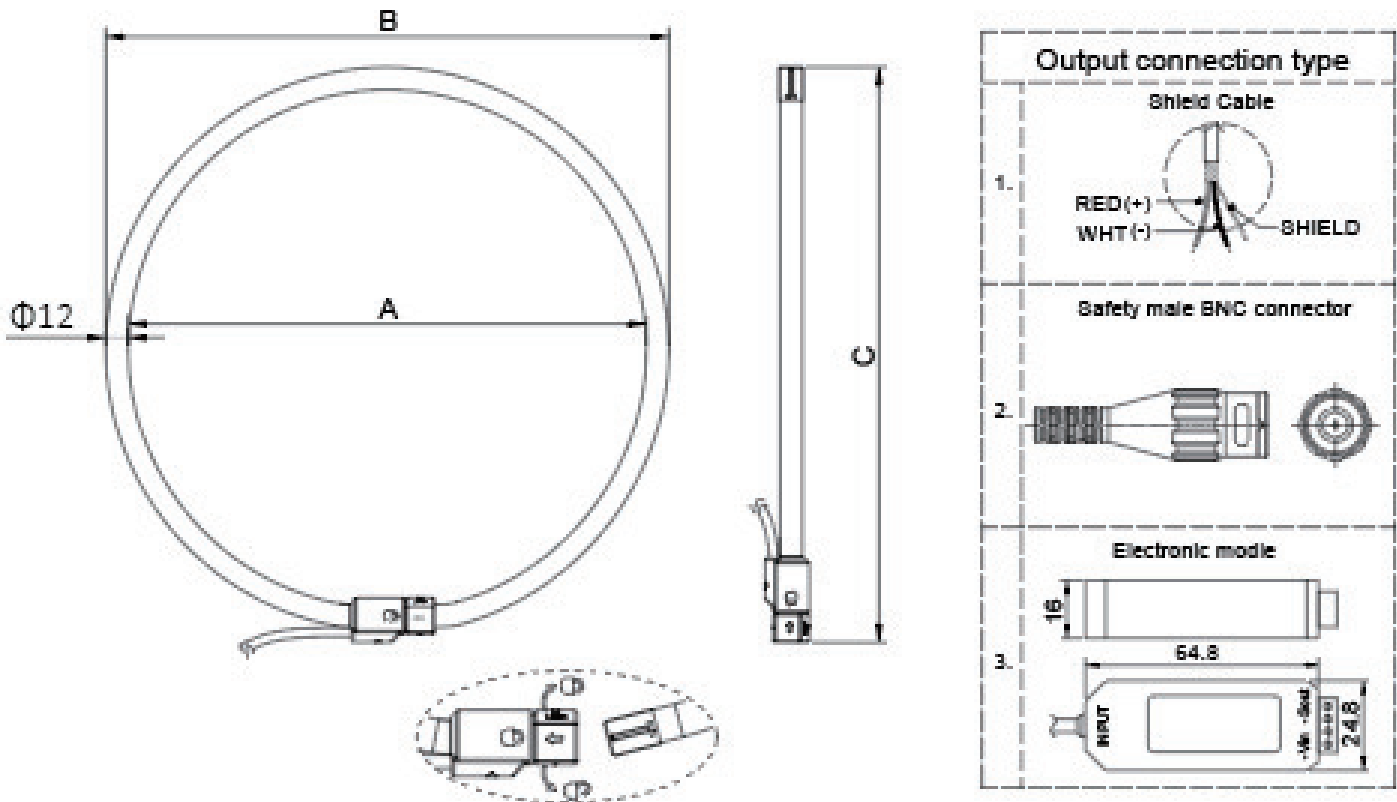


Application

1. Multimeter;
2. Power meter;
3. Power recorders;
4. Energy sub-meters;
5. Oscilloscopes meter;
6. Power load monitoring;
7. Data logging/recording;
8. Power quality analyzer;
9. Energy meter calibrator;
10. Power and harmonic meters;
11. Measuring around cable bundles;

Dimension

Dimensions(mm)	FQ-RCT02-120	FQ-RCT02-190	FQ-RCT02-305
Window A	120	190	305
Coil OD B	145	205	335
Coil Length C	400	600	1000
Output connection	1. UL2586-ESB 2x24AWG L=150cm (as required) 2. Coax terminated with safety male BNC connector L=250cm (as required) 3. UL2586-ESB 2x24AWG L=150cm (as required) with integrator		

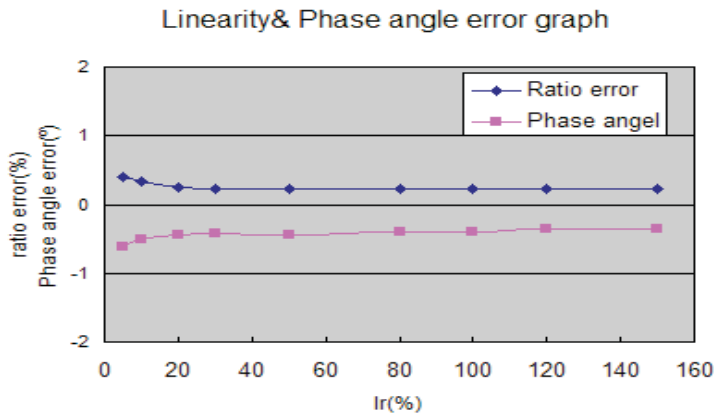


Parameters

Electrical parameters					
Model		FQ-RCT02-120	FQ-RCT02-190	FQ-RCT02-305	
Current range		1A - 100kA			
Frequency		10Hz - 20kHz			
Output voltage	Rated current	1000A/2000A	2000A/3000A	3000A/6000A	
	50Hz	100mV/200mV AC	200mV/300mV AC	300mV/600mV AC	
Max output		10kA or 100kA			
Accuracy		<1% @25°C (45-65Hz)			
Phase error		<60' @25°C (45-65Hz)			
Output sensitivity		50mV/kA, 85mV/kA, 100mV/kA (50Hz)			
Coil section diameter		8mm			
Output sensitivity		±2% Max (No Calibration)			
		±0.5% @25°C (With Calibration)			
Linearity error		±0.2% RD			
Position Sensitivity		±1%			
External Influence		±1% Max			
Bandwidth		0.1Hz - 10MHz(-3dB)			
Power Supply		/			
Lead length		2.5m			
Standard		EN 61010-1, EN 61010-2-032, EN 61010-2-031 IEC60044-1, & IEC61869-2, 1000V CAT III			
Weight		150g - 230g			
Degree of protection		IP67			
Operation temperature		-30°C to +80°C			
Storage temperature		-40°C to +90°C			

Notes: Can be customized current probe according to user requirements!

Linearity & Phase Angle Error Graph



Current range 20~ 2000A @ 25°C

Position Sensitivity

	Bus bar Position		Window A of coil (Φ mm)			Position error
			120	190	305	
Φ (mm)	●	<12.5	<20	<35	<0.5%	
Angel (°)	●	90°~270°			<1%	
Radius(mm)	r	<12	<16	<20	<2%	

Usage Instruction

